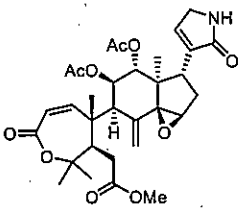
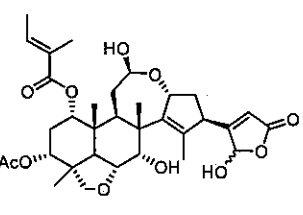
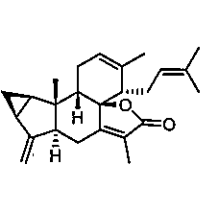
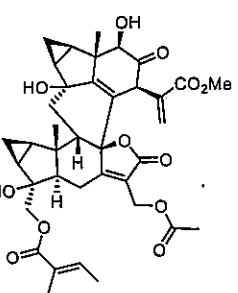


## 論文 内 容 要 旨

報 告 番 号	甲 創 第 45 号 氏 名	Yang XueRong
学位論文題目	Chemical Studies on Medicinal Plants of Guangxi Zhuang Autonomous Region, China (中国広西壮族自治区の薬用植物に関する化学的研究)	
<p>Guangxi Zhuang autohomous region, located at south central China, is an ethnic minority autonomous region, where 12 long-dwell ethnic groups are living. About 4,000 medicinal plant species have been found in Guangxi, accounting for more than one third of Chinese medicinal plant resources. Chemical studies on these medicinal plants are an important contribution for clarifying their biologically active constituents. Although several interesting bioactive natural products have been isolated from the medicinal plants of Guangxi, most of them remain to be studied. In this study, specialized metabolites of five medicinal plants collected at Guangxi (<i>Munronia pinnata</i>, <i>Sarcandra glabra</i>, <i>Rhododendron molle</i>, <i>Phyllanthus urinaria</i>, and <i>Macrosolen cochinchinensis</i>) were investigated to give 12 specialized metabolites. Their structures were elucidated by detailed analyses of spectroscopic data.</p> <p>1) New limonoids (1–9) from the aerial parts of <i>Munronia pinnata</i></p> <p>The aerial parts of <i>M. pinnata</i> (Meliaceae) have been used as a traditional herbal medicine to treat tuberculosis, cough, stomachache, and sores in Guangxi. The extract from the aerial parts of <i>M. pinnata</i> was subjected to column chromatographies repeatedly to afford nine new limonoids (1–9). Munropins A (1) and B (2) are rare peleurianin type limonoids with <math>\gamma</math>-lactam moieties at C-17. Munropins C–E (3–5), and munropins G–I (6–8) are also limonoids possessing a peleurianin skeleton with various substituents at C-17. Munropin F (9) was assigned as a nimbolinin type limonoid with a 21-hydroxy-<math>\alpha,\beta</math>-unsaturated <math>\gamma</math>-butenolactone moiety. The absolute stereochemistry of munropins A–E (1–5) were elucidated by comparisons of their experimental ECD spectra with those calculated ones.</p> <p>2) New terpenoids (22–24) from the aerial parts of <i>Sarcandra glabra</i></p> <p><i>S. glabra</i> (Chloranthaceae) has been used for the treatments of bone fracture, arthritis, and cancer in China. Three new terpenoids, sarcaglabrins A–C (22–24), and 22 known terpenoids were isolated from the aerial parts of <i>S. glabra</i>. Sarcaglabrin A (22) is a conjugate of lindenane type sesquiterpene and monoterpene possessing a unique 3/5/6/6/5 pentacyclic ring system. Sarcaglabrins B (23) and C (24) are new lindenane type sesquiterpene dimers.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>munropin A (1)</p> </div> <div style="text-align: center;">  <p>munropin F (9)</p> </div> <div style="text-align: center;">  <p>sarcaglabrin A (22)</p> </div> <div style="text-align: center;">  <p>sarcaglabrin B (23)</p> </div> </div>		